SUPERNAL DEBUTS EVTOL PRODUCT CONCEPT AT CES 2024

News / Manufacturer

Supernal unveiled S-A2, its eVTOL vehicle product concept at CES 2024. S-A2 builds on company's vision concept, S-A1, which it debuted at CES 2020, bringing together innovative aerospace engineering and Hyundai Motor Group automotive aesthetic design to create a new mode of transportation to get people in urban areas from point A to point B faster. Supernal will achieve commercial aviation safety levels and enable affordable manufacturing of its vehicles as it prepares to enter the market in 2028.

Jaiwon Shin, president of Hyundai Motor Group and CEO of Supernal, commented: "From the beginning, Supernal has been on a mission to create the right product and the right market at the right time. The unveiling of S-A2 demonstrates our unwavering commitment to deliver on that mission with a safe, efficient vehicle design that provides a clear path to market entry. By leveraging our talented 600-person team, the vast technical and business capabilities of Hyundai Motor Group and trusted aviation suppliers around the world, Supernal is ready to deliver a new era of flight."

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.

Technical components

S-A2 is a V-tail aircraft designed to cruise 120 miles-per-hour at a 1,500-foot altitude to meet typical city operation needs of 25- to 40-mile trips, initially. It features a distributed electric propulsion architecture and has eight all-tilting rotors. At entry into service, Supernal's vehicle will operate as quietly as a dishwasher: 65 dB in vertical take-off and landing phases and 45 dB while cruising horizontally.

The vehicle is designed with a priority on safety and a focus on sustainability and passenger comfort. Engineered to achieve the global commercial aviation standard of safety, it has a robust airframe structure including redundant components in critical systems such as powertrain, flight controls and avionics. The all-tilting rotor configuration will power the vehicle through both the vertical-lift and horizontal-cruise phases of flight with unique efficiency. To maintain superior quality while also being cost-effective, the vehicle will be manufactured leveraging Hyundai's mass production capability.

Ben Diachun, chief technology officer, Supernal, said: "Supernal's product concept vehicle is the result of the creativity and hard work of our world-class team. S-A2 is designed to take full advantage of emerging electric powertrain advancements that will define the next generation of aviation. From here, we will develop this concept into a revolutionary commercial product."

As Supernal continues to optimize its vehicle for certification, mass production and expanded use cases, the Company is also focused on interior modularity and battery upgradability. This includes the ability to replace the battery module as technology advances.

Aesthetic design

Supernal's engineering teams partnered with Hyundai Motor Group's automotive designers on S-A2's aesthetics – blending design with functionality – that will attract aviation operators and create the preferred AAM passenger experience. Different color palettes and materials delineate distinct pilot and passenger sections of the vehicle. Aviation-grade, energy-absorbing components are integrated into the seat frames, and contribute to the overall clean, minimalist design. Lighting transitions throughout phases of flight allow the cabin to feel larger and to provide visual cues, such as where to enter and exit the vehicle.

Luc Donckerwolke, president, chief design officer and chief creative officer, Hyundai Motor Group, stated: "S-A2 is a true representation of 'auto meets aero.' Drawing on the competence of Supernal's top aerospace engineers and Hyundai Motor Group's world-renowned automotive designers to create human-centric design that maximizes passenger experience and safety."

Drawing on experience from designing "smart cars" with similar efficient footprints and recent award-winning electric vehicles, Hyundai Motor Group's designers also incorporated the latest in passenger experience and automotive design best-practices into S-A2.

10 JANUARY 2024

ARTICLE LINK:
https://ids.50skyshades.com/news/manufacturer/supernal-debuts-evtol-product-concept-at-ces-2024

© 2015-2026 50SKYSHADES.COM — Reproduction, copying, or redistribution for commercial purposes is prohibited.